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KEY FINDINGS

WINE/VITICULTURE OCCUPATIONS IN THE NORTH BAY



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Economic and Workforce Development
California Community Colleges

REGION OF STUDY

North Bay



RESEARCH PROJECT

The wine industry has long been a strong catalyst benefitting California's economy. While most industries experienced declines during the recent recession, California's wine industry performed well with reported increases in harvests and yields, sales volume, and export revenue. *The State of the Wine Industry 2015* report predicts that the wine industry will continue to grow in the coming year due to economic factors, pricing opportunities and record yields.

In 2015, the Centers of Excellence conducted a survey of vineyards and wineries to assess the demand for four technical occupations and identified potential training gaps. More specifically, the research objectives for the study were to identify:

- Short-term labor market demand for technical occupations
- Current training supply supporting this industry
- Key issues impacting supply and demand, such as employer hiring challenges, education preferences and skill requirements

INDUSTRY EMPLOYMENT

In the North Bay, there are about 1,100 establishments in the wine industry, employing more than 19,100 workers. Over the next 12 months, the North Bay wine industry is projected to add 785 new jobs, a growth rate of four percent. The wine industry consists of vineyards, wine producers and other services that support growing, making and selling wine. These services may include, but are not limited to, providing vineyard plants or root stock; consultation on vineyard and winery science, technologies, equipment and materials; marketing and sales; and direct-to-consumer technologies.

Wine Supply Chain



OCCUPATIONAL EMPLOYMENT

The following table contains the estimated employment data for the technical wine and vineyard occupations selected for inclusion in this study. Over the next three years, the wine industry is projected to add more than 460 new technical jobs and replace about 130 workers due to retirements. Cellar worker is the largest technical position in the group with 1,900 jobs.

Employment and Retirement Projections, 2015-18

	2015 Jobs	2018 Jobs	New Jobs	3-Year Growth Rate	Expected Retirements	Total Openings	Total Annual Openings
Cellar Worker	1,932	2,100	167	8.7%	52	219	73
Assistant Vineyard Manager/ Vineyard Manager	1,021	1,197	176	17.2%	35	211	70
Assistant Winemaker/ Winemaker	960	1,011	51	5.3%	36	87	29
Laboratory Technicians	550	623	73	13.2%	6	79	26
Total	4,463	4,930	467	10.5%	129	596	199

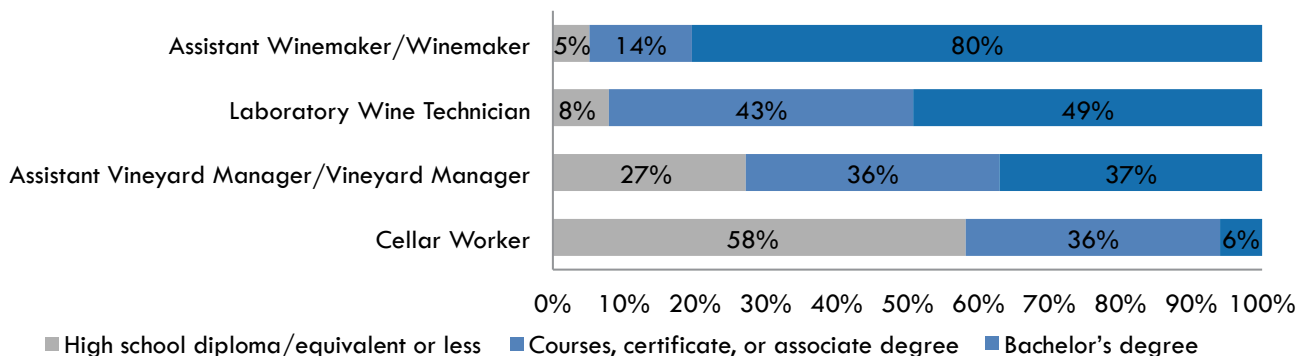
EDUCATION REQUIREMENTS

Employers were asked to identify the minimum education requirement for their wine and vineyard workers. The majority of wine and vineyard employers require postsecondary education for three of the four occupations.

- Four out of five employers require assistant winemakers/winemakers to have obtained a bachelor's degree or higher.
- Just over 40% of employers require laboratory wine technicians to have completed postsecondary courses, a certificate or associate degree, while almost half (49%) specified bachelor's degree or higher.
- About one-third of employers (36%) require assistant vineyard managers/vineyard managers to have completed postsecondary courses or an associate degree; and almost the same amount (37%) require a bachelor's degree.
- A majority (58%) of employers require a high school diploma or less for cellar workers.

Employers prefer applicants with enology, fermentation science or viticulture degrees for assistant winemaker/winemaker positions; viticulture, plant science, or enology degrees for assistant vineyard manager/vineyard manager positions; and enology, chemistry and fermentation science degrees for laboratory wine technician positions.

Minimum Education Requirements

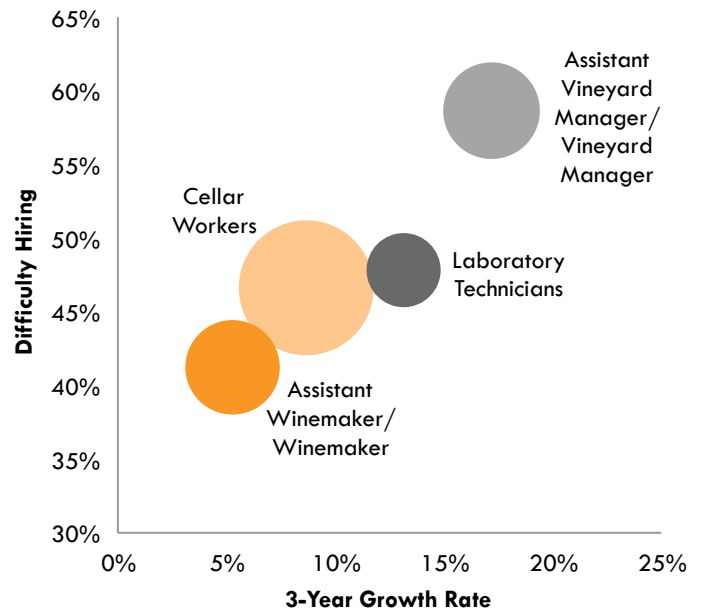


WORKFORCE CHALLENGES

The bubble chart to the right compares the three-year growth rate to the level of difficulty in hiring qualified applicants, where the size of the bubble indicates the total number of jobs for that occupation.

- **Assistant vineyard manager/vineyard manager** is the fastest growing occupation (17%) with the highest level of reported difficulty hiring qualified applicants (59%).
- **Laboratory wine technician** has the second highest level of reported difficulty hiring qualified applicants (48%) and a high projected growth rate (13%).
- **Assistant winemaker/winemaker** has the lowest level of reported difficulty hiring qualified applicants (41%) and a slow growth rate (5%) compared to the other occupations in the group.
- **Cellar worker** is the largest occupation in the group with a moderate level of reported difficulty hiring qualified applicants (47%) and a moderate growth rate (9%).

Difficulty Hiring Vs. Growth Rate



SKILL REQUIREMENTS

Wine and vineyard employers were asked to review a list of common skills and abilities, derived from online job posting data, and rank how necessary they were to the position. Below are the skills most in-demand by employers.¹

Assistant winemaker/winemaker

- Knowledge of quality control measures
- Ability to perform basic lab tests

Laboratory wine technician

- Ability to add, subtract, multiply and divide in all units of measure, using whole numbers, common fractions and decimals
- Knowledge of good sanitary laboratory practices
- Ability to read, analyze and interpret technical procedures
- Ability to conduct chemical analysis of juice and wine

Assistant vineyard manager/vineyard manager

- Knowledge of harvest operations
- Knowledge of vine pest & disease issues
- Knowledge of irrigation practices
- Knowledge of pesticides and other farming chemicals
- Ability to monitor and repair irrigation & trellis systems

Cellar worker

- Ability to read and comprehend work orders

¹ Due to a limited sample size, skill requirements are based on statewide survey data.

EDUCATIONAL PROGRAMS

There are four education institutions in the North Bay region with a viticulture and/or enology degree program. On average, these institutions confer 95 viticulture and enology degrees annually.

University Programs²

College	Program Name	Certificate / Degree	3-Year Average Degrees/ Certificates Conferred
Mendocino College*	Viticulture Skills	Certificate	0
Napa Valley College	Viticulture; Wine Marketing & Sales; and Winemaking	AS & Certificate	23
Santa Rosa Jr. College	Viticulture; Enology; Wine Business & Marketing; and Wine Evaluation & Service	AS & Certificate	29
University of California-Davis	Viticulture and Enology	BS; MS	43

* Mendocino College's viticulture skills certificate program was launched in 2014. Consequently, they have not conferred any certificates yet.



² 3-Year Average includes academic years 2011-12, 2012-13 and 2013-14.

MORE ABOUT THE CENTERS OF EXCELLENCE

The Centers of Excellence, in partnership with business and industry, deliver regional workforce research customized for community college program decision making and resource development. The Centers aspire to be the premier source of regional economic and workforce information and insight for California's community colleges. More information about the Centers of Excellence is available at www.coeccc.net.

This document and others are available to download at www.coeccc.net. The full environmental scan was released in July 2015 and includes a statewide overview of the industry, occupational employment and growth, employer hiring challenges, as well as community college programs that directly and indirectly train for these occupations. The report also includes a set of recommendations to colleges on addressing the workforce needs of California's wine industry.

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Important Disclaimer

All representations included in this report have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. Efforts have been made to qualify and validate the accuracy of the data and the reported findings; however, neither the Centers of Excellence, COE host District, nor California Community Colleges Chancellor's Office are responsible for applications or decisions made by recipient community colleges or their representatives based upon components or recommendations contained in this study.

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Economic and Workforce Development Program

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